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CLASSIFICATION OF SUBJECTS  
RELATED TO SOUTHERN FORESTRY //

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U.S. SOUTHERN FOREST EXPERIMENT STATION  
Forest Service U. S. Department of Agriculture



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Part 1. CLASSIFICATION OF FORESTRY SUBJECTS

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## 0. GENERAL CLASSIFICATION OF FORESTRY

- 0.0 GENERAL FORESTRY (descriptive material covering entire subject or several branches not classified elsewhere) (for results of forest management see 2.0)
  - 0.01 General farm forestry (descriptive material)
  - 0.02 General industrial and private forestry (descriptive material)
  - 0.03 General forestry on Federal land
  - 0.04 General forestry on State and community land
- 0.1 BIBLIOGRAPHIES
- 0.2 GENERAL MANUALS OF FORESTRY, TREATISES, ESSAYS, ADDRESSES, HANDBOOKS, ETC. (including work and programs of forestry agencies)
  - 0.21 Species monographs
  - 0.22 Type monographs
  - 0.23 Regional monographs
- 0.3 DICTIONARIES, ENCYCLOPEDIAS, YEARBOOKS, ALMANACS, CALENDARS, ETC., GENERAL MAPS, CATALOGUES
- 0.4 BIOGRAPHIES
- 0.5 FORESTRY AND BOTANICAL PERIODICALS, LUMBER AND TRADE JOURNALS, ETC.
- 0.6 PROCEEDINGS AND REPORTS of societies, trade and other associations, congresses, commissions, conventions, Federal, State, provincial and municipal forest officers, etc. (excluding forest research)
- 0.7 FOREST RESEARCH; FOREST EXPERIMENT STATIONS
  - 0.71 Investigation technique (general)
  - 0.72 Forest research programs (justification, customs, and accomplishments)
  - 0.73 Proceedings and reports of or about forest experiment stations (including branch stations and experimental forests)
- 0.8 FOREST EDUCATION AND FORESTRY PROFESSION
  - 0.81 Forest schools
  - 0.82 Arbor Day and American Forest Week
  - 0.83 Nature study
  - 0.84 Forestry extension
  - 0.85 Forestry profession (place, needs, problems, etc.)
- 0.9 HISTORY AND STATUS OF FORESTRY
  - 0.91 United States (alphabetically by States)
  - 0.92 Canada (alphabetically by provinces)
  - 0.93 Foreign countries (alphabetically by countries)

FILE  
LIMITED  
to  
material  
important  
to the  
South





## 1. FOREST BOTANY AND SOILS

(For general botany and soils, see G3.; for range botany, see 10.1; for botanical aspects related to naval stores, see 4.67)

### 1.1 TAXONOMY and DENDROLOGY (includes classification, description, identification, distribution, and lists of forest plants)

- 1.11 Trees and shrubs
- 1.12 Other forest vegetation
- 1.13 Arboreta and herbaria

### 1.2 ANATOMY, MORPHOLOGY, HISTOLOGY, CYTOLOGY, EMBRYOLOGY, PHYLOGENY (material pertaining to the structure, shape, tissues, cells, the development of embryos, and evolutionary development of forest plants)

### 1.3 PHYSIOLOGY (life processes of forest plants)

- 1.31 Intake of materials (water, minerals, gases)
- 1.32 Conduction of materials
- 1.33 Outgo of materials
- 1.34 Nutrition (essential elements, photosynthesis, food storage, etc.)
- 1.35 Respiration
- 1.36 Growth
  - 1.361 Growth regulators
  - 1.362 Roots
  - 1.363 Stems and leaves
  - 1.364 Fruit and seed (including germination)
  - 1.365 Vegetative reproduction
- 1.37 Bio-electric phenomena
- 1.38 Solar radiation (shade tolerance, etc.)
- 1.39 Symbiotic relationships (mycorrhiza, nitrogen-fixing bacteria, etc.)

### 1.4 FOREST ECOLOGY (relationship of forest plants to their environment)

- 1.41 Forest description and distribution (formations, associations, and societies, etc., including cover types)
- 1.42 Succession (series, climax, subclimax, change in cover type, etc.)
- 1.43 Competition
- 1.44 Acclimatization and adaptation
- 1.45 Phenology (relation of climate to biological development)

### 1.5 SITE FACTORS

- 1.51 Edaphic factors (forest soils and litter) (for general soils information, see G3.7)



- 1.511 Origin and classification of forest soil (includes soil surveys)
- 1.512 Soil physics (texture, etc.)
- 1.513 Soil chemistry
- 1.514 Soil biology
- 1.515 Soil moisture (includes flooding, drought, and drainage)
- 1.52 Physiographic factors (aspect, slope, etc.)
- 1.53 Climatic factors
  - 1.531 Light
  - 1.532 Temperature
  - 1.533 Precipitation
  - 1.534 Humidity
  - 1.535 Wind
- 1.6 FOREST SITE QUALITY (in relation to soils and other site factors and indicator plants; see 6.35 for site quality tables and charts)
- 1.7 SILVICAL CHARACTERISTICS AND SILVICAL REQUIREMENTS OF TREES (by species)
  - 1.71 Arboriculture and city forestry (growing and care of individual trees in cities and parks (see 3.6))
- 1.8 FOREST GENETICS
  - 1.81 Inheritance of characteristics
  - 1.82 Tree selection
  - 1.83 Tree breeding
  - 1.84 Vegetative reproduction of selected trees
  - 1.85 Application of genetics in silvicultural practice





## 2. FOREST MANAGEMENT

### 2.0 APPLICATION AND RESULTS OF FOREST MANAGEMENT (technical and financial aspects of growing timber)

- 2.01 Selective cutting and logging
- 2.02 Management of farm forests and woodlands (for general farm forestry not confined to forest management, see 0.01)
- 2.03 Management for specific products
  - 2.031 Saw timber
  - 2.032 Naval stores
  - 2.033 Pulpwood
  - 2.034 Poles and piles
- 2.04 Management for integrated utilization

### 2.1 SILVICULTURE

- 2.11 Systems of harvest cuttings and obtaining regeneration (techniques and results; financial aspects go under 2.0)
  - 2.111 Even-aged systems -- reproduction mainly from seed
    - 2.1111 Clear-cutting with seed trees
    - 2.1112 Clear-cutting with seeding from the side (by groups, strips, etc.)
    - 2.1113 Clear-cutting and planting
    - 2.1114 Shelterwood
  - 2.112 Uneven-aged systems -- reproduction mainly from seed (selection by single trees or groups)
  - 2.113 Reproduction from sprouts (coppice)
- 2.12 Intermediate cuttings and culture and their financial aspects (includes care of plantations as well as natural reproduction; often called timber stand improvement)
  - 2.121 Killing undesirable trees
  - 2.122 Cleaning (includes use of animals, poisons, and fire as well as cutting tools)
  - 2.123 Release cutting (girdling, poisoning, etc.)
  - 2.124 Improvement cutting (includes sanitation cutting)
  - 2.125 Thinning (by species and types)
  - 2.126 Salvage cutting
  - 2.127 Pruning and debudding
  - 2.128 Soil cultivation, taungya, fertilizers, etc.
- 2.13 Tree classification, marking rules, and cutting guides
- 2.14 Effect of silviculture upon quality of product
- 2.15 Requirements for natural reproduction
  - 2.151 Alteration of environment to obtain or expedite natural reproduction (including disposal of logging slash)
- 2.16 Forest tree seed
  - 2.161 Production and source (both regional and by individual trees, and ages and characters of seed trees); seed destruction





- 2.162 Natural dispersal
- 2.163 ~~Collection~~
- 2.164 Extraction and cleaning
- 2.165 Testing (including purity, weight, moisture content, apparent soundness, and actual germination)
- 2.166 Storage
- 2.167 Treatment (as for sterilization, or to hasten germination)
- 2.168 Inspection, certification, regulation, and trade (including catalogues)
- 2.17 Artificial forestation
  - 2.171 Direct seeding
  - 2.172 Nursery practice
    - 2.1721 Legislation, inspection, regulation, and trade (including catalogues)
  - 2.173 Planting practice
  - 2.174 Tools, equipment, supplies, and instruments
  - 2.175 Statistics of seed used, stock distributed, acres planted, etc.
  - 2.176 Labor requirements, costs, cost accounting, and returns
  - 2.177 Exotics; extending range of native species

## 2.2 BUSINESS ASPECTS OF FOREST MANAGEMENT

- 2.21 Administration and organization
  - 2.211 Techniques and fundamentals
  - 2.212 Foreign
  - 2.213 Federal
    - 2.2131 National forest
  - 2.214 State
  - 2.215 County and municipal
  - 2.216 Private
- 2.22 Finance and valuation
  - 2.221 Principles (nature of capital and income; interest)
  - 2.222 Stumpage valuation
    - 2.2221 Prices
    - 2.2222 Methods
  - 2.223 Valuation of forest land
    - 2.2231 Values
    - 2.2232 Methods
  - 2.224 Valuation of growing stock
    - 2.2241 Values
    - 2.2242 Methods
  - 2.225 Damage appraisal
    - 2.2251 Values
    - 2.2252 Methods
  - 2.226 Cost accounting
  - 2.227 Factors affecting profits in timber growing
- 2.23 Regulation of managed forests
  - 2.231 Principles (including increment, rotation, normal forests, sustained yield)
  - 2.232 Working and management plans
    - 2.2321 Techniques
    - 2.2322 Actual plans



3. FOREST DAMAGE AND PROTECTION  
(For effects of flooding, see 1,515 and 8,315)

3.1 FIRE (for special aspects relating to naval stores, see 4.692)

- 3.11 Hazard, causes, and behavior
  - 3.111 Hazard and danger
    - 3.1112 Fire danger measurements
  - 3.112 Causes
  - 3.113 Behavior
- 3.12 Fire statistics (acreage protected; area burned; valuation of damage; numbers, causes, and classes of fires)
- 3.13 Effects
  - 3.131 Damage
  - 3.132 Fire and longleaf pine
  - 3.133 Use of fire (prescribed or controlled burning)
- 3.14 Prevention (for fire laws, see 7.2 forestry legislation)
  - 3.141 Education
  - 3.142 Firebreaks
- 3.15 Control
  - 3.151 Methods
    - 3.1511 Detection
    - 3.1512 Suppression
  - 3.152 Costs, general economics, and labor requirements
  - 3.153 Equipment
- 3.16 Organization and policy

3.2 ANIMALS AND BIRDS

- 3.21 Grazing animals
  - 3.211 Cattle and horses
  - 3.212 Sheep and goats
  - 3.213 Hogs
- 3.22 Rodents
- 3.23 Birds

3.3 DISEASES AND DECAY [FILE LIMITED to species and material important in the South] (to include only more important southern diseases and decays; for special aspects relating to naval stores, see 4.693)

- 3.31 Trees
  - Little Leaf
  - Cronartium
  - Brown spot
  - Heart rots
  - Root rots
  - (others as needed -- no numbers)
- 3.32 Wood products
  - 3.321 Fungi in logs
  - 3.322 Fungi in seasoning and stored lumber
  - 3.323 Fungi in wood in use





3.4 INSECTS AND MARINE BORERS [FILE LIMITED to species and material important in the South] (to include only more important southern forest insects; for special aspects relating to naval stores, see 4.691)

3.41 Trees

Dendroctonus bark beetles (see 3.42 for Ips)

Borers

Ants

Pine Colaspis

Tipmoth

White grubs

Sawfly

(others as needed -- no numbers)

3.42 Wood products

Ips bark beetles (see 3.41 for Dendroctonus)

Marine borers

Termites

Powder-post beetles

Ambrosia beetles

(others as needed -- no numbers)

3.5 CLIMATIC, MECHANICAL, AND CHEMICAL AGENTS

3.51 Climatic sunscald, ice hail, wind, lightning, etc.

3.52 Mechanical (logging scars, blazes, etc.)

(for turpentine damage, see 4.68)

3.53 Chemical (smoke, fumes, sprays, dust, etc.)

3.6 TREE SURGERY AND PROTECTION AND CARE OF CITY AND PARK TREES (see 1.51)

3.7 PLANT PESTS

3.71 Mistletoe





4. HARVESTING, MANUFACTURING, DEVELOPING,  
AND PRESERVING OF FOREST PRODUCTS

4.0 GENERAL

- 4.01 Employment and labor requirements
  - 4.011 Wages and hours
- 4.02 Production
- 4.03 Requirements and consumption (including exports and imports)
- 4.04 Transportation
  - 4.041 Shipping weights
  - 4.042 Freight rates
- 4.05 Markets and marketing
- 4.06 General utilization problems (includes wood vs. substitutes; low-grade hardwoods; etc.)
- 4.07 Utilization by species
- 4.08 Miscellaneous--nonwood or nonwood-derived forest products (Spanish moss, pine needles, nuts, etc.)

4.1 LOGGING

- 4.11 General logging studies (includes development of operational efficiency and cost accounting subdivided as needed)
- 4.12 Log making (methods, equipment, and costs, not connected with milling studies)
- 4.13 Log skidding and transportation (methods, equipment, and costs, not connected with milling studies)
- 4.14 Logging waste
- 4.15 Log grades and lumber grade realization by log grades
- 4.16 Statistics
  - 4.161 Log prices (for stumpage prices, see 2.1121)
  - 4.162 General logging costs and labor requirements

4.2 LUMBER

- 4.21 History and description of lumber industry
  - 4.211 Financial structure
- 4.22 Production statistics
- 4.23 Markets and marketing
  - 4.231 Prices
  - 4.232 Consumption of and requirements for lumber (including distribution)
- 4.24 Manufacturing (for technology of seasoning and dry kilns, see 5.3)
  - 4.241 Log storage
  - 4.242 Sawmill
  - 4.243 Planing mill and planing mill products
  - 4.244 Power plant
  - 4.245 Yard
  - 4.246 Dry kilns
  - 4.247 Manufacturing costs, cost accounting, and labor requirements (logging and milling studies; development of operational efficiency)



- 4.25 Lath, tent stakes, and similar byproducts
- 4.26 Mill waste
- 4.27 Grades

#### 4.3 PULPWOOD, PULP, AND PAPER

- 4.31 Pulpwood
  - 4.311 Production statistics
  - 4.312 Statistics of requirements, consumption, and distribution (including exports and imports)
  - 4.313 Harvesting and transportation
  - 4.314 Prices
- 4.32 Pulp and paper
  - 4.321 History and description of pulp and paper industry
    - 4.3211 Financial structure
  - 4.322 Production statistics
  - 4.323 Markets and marketing
    - 4.3231 Prices
    - 4.3232 Consumption of and requirements for paper and paperboard products
  - 4.324 Manufacturing
    - 4.3241 Processes (includes relationships to species)
    - 4.3242 Equipment
    - 4.3243 Manufacturing costs, cost accounting, and labor requirements (development of operational efficiency)
  - 4.325 Paper and paperboard products and properties (including impregnated paper plastics)
  - 4.326 Pulpmill waste
  - 4.327 Grades
  - 4.328 Fibers (identification, properties, relation to processes and yields)
    - 4.3281 Wood
    - 4.3282 Other fibers (subdivided as needed)

#### 4.4 CHEMICALLY DERIVED AND EXTRACTED PRODUCTS (mainly products made from chipped or otherwise disintegrated wood (excluding pulp and paper)

- 4.41 Solvent extraction and destructive distillation
  - 4.411 Wood naval stores
    - 4.4111 Steam distillation
    - 4.4112 Destructive distillation
  - 4.412 Charcoal kilns
  - 4.413 Destructive hardwood distillation
  - 4.414 Tannin
  - 4.415 Cedar oils
    - (others as needed)





4.42 Hydrolysis

4.421 Sugars

4.4211 Alcohol

4.4212 Yeasts and stock feed

4.422 Lignin and lignin derivatives

4.423 Hydrolyzed wood products (includes plastics)

4.43 Alkali fusion (oxalic acid)

4.44 Hydrogenation (byproducts as needed)

4.5 IMPROVED WOODS (excluding products made from chipped or otherwise disintegrated wood)

4.51 Built-up products

4.511 Glues

4.512 Laminating and laminated products, including built-up boards (manufacture, statistics, etc.)

4.513 Veneer and plywood

4.5131 Veneer (manufacture, statistics, etc.)

4.5132 Plywood and related products (manufacture, statistics, etc.)

4.514 Gluing knots

4.52 Physically and chemically altered wood

4.521 Compressed woods (Staypak, etc.)

4.522 Impregnated woods (Impreg, etc.)

4.523 Impregnated and compressed woods (Compreg, etc.)

4.524 Acetylated wood

4.6 GUM NAVAL STORES (for naval stores management, see 2.03)

4.61 History and description of gum naval stores industry

4.611 United States

4.6111 Conservation program

4.612 Foreign countries

4.62 Production statistics

4.63 Markets and marketing

4.631 Prices

4.632 Consumption of and requirements for naval stores products

4.64 Processing and manufacture of gum

4.641 Methods and equipment

4.642 Costs, cost accounting, and labor requirements

4.643 Products

4.644 Grades

4.65 Production of gum

4.651 Equipment

4.652 Chipping

4.653 Chemical stimulation

4.654 Collection

4.655 Costs, cost accounting, and labor requirements





- 4.66 Gum yields
  - 4.661 Tree characteristics
  - 4.662 Stand character
  - 4.663 Species
  - 4.664 Species improvement
  - 4.665 Site factors
- 4.67 Botany of naval stores species.
  - 4.671 Physiology of gum production
  - 4.672 Anatomy of naval stores species
- 4.68 Effect of turpentine
  - 4.681 Tree growth
  - 4.682 Damage
- 4.69 Protection problems limited to naval stores
  - 4.691 Insects
  - 4.692 Fire
  - 4.693 Disease (including dry face)

#### 4.7 OTHER PRIMARY WOOD PRODUCTS

- 4.71 Cooperage
- 4.72 Poles and piles
- 4.73 Cross ties
- 4.74 Posts
- 4.75 Mine timbers
- 4.76 Fuelwood (includes heating value and wood burners)
- 4.77 Shakes and shingles

#### 4.8 SECONDARY WOOD PRODUCTS

- 4.81 Furniture
- 4.82 Boxes and crates
- 4.83 Vehicles and implements
- 4.84 Dimension and small wood products (includes handles, etc.)
- 4.85 Chemically unaltered wood waste products
  - 4.851 Sawdust-plasterboard
  - 4.852 Wood flour
- 4.86 Super-sonic treated woods

#### 4.9 WOOD PRESERVATION

- 4.91 History, description, and statistics of wood preservation industry
- 4.92 Mildew and stain prevention
- 4.93 Decay, insect, and marine borer control
  - 4.931 Methods and costs
  - 4.932 Preservatives (including prices)
  - 4.933 Service records
- 4.94 Fire retardants
- 4.95 Water repellants
- : 4.96 Paints



## 5. WOOD TECHNOLOGY

### 5.1 WOOD AND FIBER STRUCTURES AND PROPERTIES

- 5.11 Species properties and identification (includes physical, chemical, mechanical, and machining properties; set up by species as needed — no numbers)
- 5.12 Structure and anatomy of wood
  - 5.121 Structure and anatomy in relation to properties (compression and tension wood)
  - 5.122 Growth-quality relationship
  - 5.123 Heartwood and sapwood
- 5.13 Fibers (description, properties)

### 5.2 TIMBER MECHANICS

- 5.21 Construction and design
  - 5.211 Buildings (includes prefabrication)
  - 5.212 Bridges and trusses
  - 5.213 Vehicles
- 5.22 Structural timbers (strength qualities, grades)
- 5.23 Joints and fastenings
- 5.24 Bending (use and making of bentwood members and products)
- 5.25 Timber testing
- 5.26 Containers and packaging

### 5.3 SEASONING

- 5.31 Moisture in wood
- 5.32 Air seasoning
- 5.33 Kiln drying
- 5.34 Chemical drying
  - 5.341 In open air
  - 5.342 In kilns and retorts
- 5.35 Storage of seasoned wood

### 5.4 CHEMISTRY OF WOOD AND TREE PRODUCTS

- 5.41 Composition of wood
  - 5.411 Wood substance (cell walls and lignin)
  - 5.412 Extractives (extraneous components; everything except cell walls and lignin)
  - 5.413 Relation of wood chemistry to tree species (species as needed)
- 5.42 Composition of other tree products
  - 5.421 Gum naval stores (oleoresin)
  - 5.422 Storax (others as needed)
- 5.43 . Physical-chemical properties





## 6. FOREST MEASUREMENTS

### 6.1 SURVEYING AND MAPPING

- 6.11 Plane surveying
- 6.12 Topographic surveying
- 6.13 Photogrammetry (aerial photography)
- 6.14 Equipment

### 6.2 FOREST MENSURATION TECHNIQUES AND METHODS

- 6.21 Age determination
- 6.22 Diameter determination
- 6.23 Height determination
- 6.24 Growth and mortality determination
- 6.25 Methods of constructing and using log rules  
(includes scaling of any wood product)
- 6.26 Methods of constructing, checking, and using  
tree volume tables
- 6.27 Methods of constructing and using taper tables
- 6.28 Methods of constructing and using yield, stand, stock,  
and site quality tables and charts (includes determina-  
tion of site quality)
- 6.29 Forest survey, timber cruising, and sample plot techniques  
and methods
  - 6.291 Forest survey
  - 6.292 Sample plots and sample trees

### 6.3 FOREST MENSURATION TABLES AND CHARTS

- 6.31 Volumes of logs and pieces (includes log rules  
and deductions for defect)
  - 6.311 Board feet
  - 6.312 Cubic feet
  - 6.313 Cords and pulpwood "units"
  - 6.314 Other units
- 6.32 Volumes of trees
  - 6.321 Board feet
  - 6.322 Cubic feet
  - 6.323 Cords and pulpwood "units"
  - 6.324 Other units (including basal area tables,  
tables of volumes of cylinders, etc.)
- 6.33 Converting factors
- 6.34 Taper and form tables
- 6.35 Yield, stand, stock, and site quality tables and charts
- 6.36 Growth data
  - 6.361 Trees
  - 6.362 Stands





## 7.0 FOREST RESOURCES AND ECONOMICS

### 7.0 DISCUSSION OF FOREST SITUATION, FOREST PRACTICES, CONSERVATION, AND PROBLEMS (including general discussions relating to specific owners or ownership classes)

- 7.01 World
- 7.02 United States
  - (by ownership classes as needed)
- 7.03 South
  - 7.031 States (as needed)
  - 7.032 Ownership's classes (as needed)

### 7.1 FOREST RESOURCES STATISTICS

- 7.11 United States
  - 7.111 Land area
  - 7.112 Timber volumes (bd. ft., cu. ft., cords)
  - 7.113 Resources of special products
  - 7.114 Growth and drain
- 7.12 South
  - 7.121 Land area
  - 7.122 Timber volumes
  - 7.123 Naval stores resources
  - 7.124 Pole and pile resources
  - 7.125 Resources of special products
  - 7.126 Growth and drain
- 7.13 Southeastern States
  - 7.131 Alabama
    - 7.1311 Land area
    - 7.1312 Timber volumes
    - 7.1313 Naval stores resources
    - 7.1314 Pole and pile resources
    - 7.1315 Resources of special products
    - 7.1316 Growth and drain
  - 7.132 Florida
    - 7.1321 Land area
    - 7.1322 Timber volumes
    - 7.1323 Naval stores resources
    - 7.1324 Pole and pile resources
    - 7.1325 Resources of special products
    - 7.1326 Growth and drain
  - 7.133 Georgia
    - 7.1331 Land area
    - 7.1332 Timber volumes
    - 7.1333 Naval stores resources
    - 7.1334 Pole and pile resources
    - 7.1335 Resources of special products
    - 7.1336 Growth and drain



7.134 Mississippi

- 7.1341 Land area
- 7.1342 Timber volumes
- 7.1343 Naval stores resources
- 7.1344 Pole and pile resources
- 7.1345 Resources of special products
- 7.1346 Growth and drain

7.14 West Gulf States

7.141 Arkansas

- 7.1411 Land area
- 7.1412 Timber volumes
- 7.1413 Naval stores resources
- 7.1414 Pole and pile resources
- 7.1415 Resources of special products
- 7.1416 Growth and drain

7.142 Louisiana

- 7.1421 Land area
- 7.1422 Timber volumes
- 7.1423 Naval stores resources
- 7.1424 Pole and pile resources
- 7.1425 Resources of special products
- 7.1426 Growth and drain

7.143 Oklahoma

- 7.1431 Land area
- 7.1432 Timber volumes
- 7.1433 Naval stores resources
- 7.1434 Pole and pile resources
- 7.1435 Resources of special products
- 7.1436 Growth and drain

7.144 Texas

- 7.1441 Land area
- 7.1442 Timber volumes
- 7.1443 Naval stores resources
- 7.1444 Pole and pile resources
- 7.1445 Resources of special products
- 7.1446 Growth and drain

7.2 FORESTRY LEGISLATION

7.21 Laws and bills

7.211 Federal

7.212 States, counties, etc. (by States as needed)

7.22 Need for public control of forestry and proposed legislation

7.3 FOREST POLICY (including subsidy, and public aid programs)

7.31 Foreign forest policy

7.32 Federal forest policy

7.33 State forest policy (States as needed)

7.34 Private and industrial forest policy



7.4 LAND USE

7.41 Classification and zoning

7.42 Ownership

7.5 TAXATION, CREDITS, AND INSURANCE

7.51 Taxation

7.511 Tariffs

7.512 Federal forest tax programs

7.513 State and local tax programs  
(by States as needed)

7.52 Forest credits (including timber bonds)

7.53 Forest insurance

7.6 INDUSTRIAL, AGRICULTURAL, AND SOCIAL RELATIONS





## 8. FOREST AND RANGE INFLUENCES

### 8.1 GENERAL WATERSHED MANAGEMENT

### 8.2 EROSION AND FLOOD CONTROL (including watersheds and watershed protection)

- 8.21 Flood and erosion history
- 8.22 Programs and policies, and problems  
(by watersheds or agencies and as needed)
- 8.23 Flood control survey reports (by watersheds)
- 8.24 Evaluation and description of flood and erosion  
damages and benefits
- 8.25 Upstream water control, methods and costs
- 8.26 Soil stabilization, and costs
  - 8.261 Roadbanks
  - 8.262 Streambanks
  - 8.263 Watersheds (effect of forest land management  
practices on soil erosion)
- 8.27 Wind erosion and control (dune fixation)
- 8.28 Sedimentation

### 8.3 HYDROLOGY (action, movement, and distribution of water)

- 8.31 Influence of forests on water cycle
  - 8.311 Ground water and soil moisture
  - 8.312 Infiltration
  - 8.313 Evaporation, transpiration, and interception
  - 8.314 Surface run-off
  - 8.315 Streamflow and floods
- 8.32 Precipitation (when related to water cycle)

### 8.4 INFLUENCE OF FORESTS ON CLIMATE (includes shelterbelts and windbreaks)



9. FOREST IMPROVEMENTS

9.1 LAND CLEARING

9.2 ROADS; TRAILS; FIRELINES

9.3 RAILROADS

9.4 BRIDGES

9.5 DAMS

9.6 FENCES

9.7 AIRPORTS AND AIR STRIPS

9.8 COMMUNICATIONS AND POWER

9.81 Radio and radar

9.82 Telephone

9.83 Electric power

9.9 BUILDINGS; LOOKOUT TOWERS; WATER TOWERS





## 10. FOREST GRAZING AND RANGE MANAGEMENT

### 10.0 GENERAL DISCUSSION AND PROBLEMS

#### 10.1 RANGE PLANTS AND FORAGE TYPES

- 10.11 Systematic botany (includes classification, identification, description, distribution, lists, collections and herbaria of range plants)
- 10.12 Forage values
  - 10.121 Chemical analyses
- 10.13 Poisonous plants
- 10.14 Ecology (range plants in relation to their environment)
- 10.15 Physiology, morphology, and anatomy (range plant life processes and structure)
- 10.16 Pathology (range plant diseases)
- 10.17 Genetics (range plant heredity and breeding)

#### 10.2 RANGE MANAGEMENT

- 10.21 Range surveys and management plans
- 10.22 Range utilization and maintenance (includes grazing capacity, systems of forage management, adaptability of range to different classes of livestock)
- 10.23 Distribution and control of livestock
- 10.24 Range development
  - 10.241 Natural revegetation
  - 10.242 Artificial revegetation
    - 10.2421 Species
    - 10.2422 Sites
    - 10.2423 Methods
  - 10.243 Eradication of noxious plants
  - 10.244 Mechanical improvements (including fences, watering places, corrals, etc.)
- 10.25 Range management costs and returns

#### 10.3 RANGE LIVESTOCK

- 10.31 Historical and descriptive
- 10.32 Range livestock management
  - 10.321 Handling and raising of livestock
  - 10.322 Breeds and breeding of livestock
  - 10.323 Feeds and feeding of livestock
  - 10.324 Diseases, parasites, and predators of livestock

#### 10.4 RANGE AND LIVESTOCK RESOURCES AND ECONOMICS

- 10.41 Resources and resource statistics
- 10.42 Prices and markets
- 10.43 Range policies and programs
- 10.44 Relationship of grazing to timber growing
- 10.45 Range land ownership and control



10.5

GRAZING INFLUENCES

- 10:51 Effect of grazing on forest growth and reproduction
- 10:52 Effect of grazing on forest fire hazard



11. RECREATION AND WILDLIFE

11.1 RECREATION

- 11.11 Forest recreational resource
  - 11.111 National Parks
  - 11.112 National Forests
  - 11.113 State and local parks and forests
- 11.12 Development of recreational facilities on forest land (camping sites, trails, etc.)
- 11.13 Wilderness, natural and primitive areas
- 11.14 Roadside strips
- 11.15 Effect of recreation on forest land

11.2 WILDLIFE AND FISH [FILE LIMITED to species and material important to South]

- 11.21 General wildlife conservation and management (includes game refuges, statistics of kill, surveys, censuses, etc.)
- 11.22 Animals (by species as needed -- no numbers)
- 11.23 Birds (by species as needed -- no numbers)
- 11.24 Fish (by species as needed -- no numbers)
- 11.25 Relationship of forest plants to wildlife





Part 2. CLASSIFICATION OF GENERAL OR NONFORESTRY SUBJECTS

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G4.	AGRICULTURE.....	27
G5.	TECHNOLOGY.....	27



GO. - REFERENCE WORKS

- GO.0 MISCELLANEOUS (General Education, philosophy, grammar, literature, rhetoric, journalism)
- GO.1 CYCLOPEDIAS, ENCYCLOPEDIAS
- GO.2 DICTIONARIES and GLOSSARIES
- GO.3 ATLASES and GAZETTES
- GO.4 CENSUSES, YEARBOOKS, ALMANACS (compendiums of statistics)
- GO.5 MANUALS
- GO.6 BIOGRAPHICAL SKETCHES, DIRECTORIES
- GO.7 BIBLIOGRAPHIES and LIBRARY INDEXES (alphabetically by subject).  
Library Science.....
- GO.8 JOURNALS, PROCEEDINGS, and REPORTS
- GO:81 Agricultural Experiment Station reports
- GO.82 Technical nonforestry journals
- GO.9 CATALOGUES





G1. - HISTORY

G1.0 GENERAL HISTORY (for specific fields, see General in that field)

G2. - RESOURCES AND ECONOMICS

G2.0 GENERAL

G2.01 United States

G2.02 South

(States as needed -- no numbers)

G2.1 ABSTRACT THEORY, PRINCIPLES, PROBLEMS, HISTORICAL, STABILIZATION, CONSUMPTION, CYCLES and CRISES

G2.2 NATURAL RESOURCES (economic geography, statistics).

G2.3 LAND UTILIZATION, OWNERSHIP, and ECONOMICS

G2.4 AGRICULTURE (including statistics)

G2.5 INDUSTRY

G2.6 TRANSPORTATION and COMMUNICATION

G2.7 COMMERCE, BUSINESS, and FINANCE

G2.8 GOVERNMENT ECONOMICS and PUBLIC FINANCE and TAXATION

G2.9 SOCIOLOGY



### G3. - SCIENCE

#### G3.1 BIOLOGY - General

#### G3.2 BOTANY

- G3.21 Systematic botany (keys, manuals, check lists, popular floras)
- G3.22 Morphology, anatomy, histology, cytology
- G3.23 Plant physiology (plant microchemistry)
- G3.24 Ecology (both plant and animal); includes plant geography, dissemination, mycorrhizal studies, interplay of plant and environment
- G3.25 Genetics
- G3.26 Plant pathology

#### G3.3 ZOOLOGY

#### G3.4 ENTOMOLOGY

#### G3.5 CHEMISTRY - BIOCHEMISTRY

#### G3.6 GEOGRAPHY, HUMAN GEOGRAPHY, GEOLOGY, PHYSIOGRAPHY, PALEONTOLOGY

#### G3.7 SOILS

#### G3.8 MATHEMATICS and STATISTICAL METHODS

- G3.81 General mathematics
- G3.82 Statistical methods
  - G3.821 Distributions (frequency curves, Pearson's curves, Gram-Charlier curve, etc.)
  - G3.822 Tests of significance; tests of independence, homogeneity, and goodness of fit (regression coefficients, etc.)
  - G3.823 Correlation analysis
  - G3.824 Analysis of time series and trends
  - G3.825 Analysis of variance and covariance
  - G3.826 Design, analysis, and interpretation of field experiments
  - G3.827 Sampling
  - G3.828 Index numbers
  - G3.829 Charts, tables, and diagrams useful to statisticians

#### G3.9 PHYSICS, ASTRONOMY

- G3.91 Meteorology, climatology, and weather
- G3.92 Solar ephemeris



#### G4. - AGRICULTURE

G4.1 GENERAL (includes farm management)

G4.2 ANIMAL INDUSTRY, GRAZING, VETERINARY MEDICINE

G4.3 PLANT INDUSTRY (harmful weeds, useful plants, fertilizers, reclamation, etc.) (species such as bamboo and tung as needed)

#### G5. - TECHNOLOGY

G5.1 ENGINEERING

G5.2 PHOTOGRAPHY

G5.3 CHEMURGY (industrial use of agricultural products)









Acclimatization	1.44
Accounting, cost	2.226
Acetylated wood	4.324
Adaptation	1.44
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" , economics of	G2.4, 7.6
Agricultural Experiment Station reports	G0.81
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Alkali fusion	4.43
Almanacs	G0.4
" , forestry	0.3
Anatomy, of forest plants	1.2
" , " nonforest plants	G3.22
" , " wood	5.12
" , range plants	10.15
Animals, damage by and protection from	3.2
" , ecology	G3.24
" , industry, grazing, veterinary medicine	G4.2
" , wildlife	11.22
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Arboreta	1.13
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Artificial forestation	2.17
" revegetation, range,	10.242
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Bamboo	G4.3
Basal area tables	6.324
Bending of wood	5.24
Bibliographies	G0.7
" , forestry	0.1
Biochemistry	G3.5
Bio-electric phenomena	1.37
Biographical sketches	0.4, G0.6
Biology	G3.1
Birds	11.23
" , damage by and protection from	3.2
Borers	3.4
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" , general	G3.2
" of naval stores species	4.67
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" , tree.	1.83
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1/ Numbers which are not broken down further will be asterisked in final draft.





	Class	85
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		82
		7.5
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Camp sites	11.12	128
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Censuses	G0.4	01
Charcoal kilns	4.412	0.1
Check lists, botanical	G3.2	22
Chemical analyses, range plants	10.121	
" drying	5.34	225
Chemically derived and extracted products	4.4	3.5
" unaltered wood waste products	4.85	3.
Chemistry	G3.5	.24
" of wood and tree products	5.4	9.5
Chemurgy	G5.3	127
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Classification and zoning, forest land	7.41	.93
Cleaning, silvicultural	2.122	1.1
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" with seeding from the side	2.1112	413
" seed trees	2.1111	112
Climate, as a forest site factor	1.53	0.2
" , damage from	3.5	0.3
" , influence of forests on	8.4	.84
" , relation of to biological development	1.45	0.6
Climatology	G3.91	324
Commerce	G2.7	693
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" " " , electric power	9.83	821
" " " , radio and radar	9.81	515
" " " , telephone	9.82	515
Competition, forest	1.43	5.3
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Conduction of materials	1.32	1.4
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" , forest products	4.03	12.2
" , lumber	4.232	7.
" , pulp and paper	4.3232	12.3
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Cultivation, soil	2.128
Cutting guides, tree	2.13
" , harvest, systems of; techniques and results	2.11
" , intermediate	2.12
" , selective	2.01
Cyclopedias	G0.1
Cytology	1.2, G3.22
Damage appraisal, forest	2.225
" , climatic, mechanical, and chemical agents	3.5
" , forest	3.
Damages and benefits, erosion and flood control	8.24
Dams	9.5
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" , control of	4.93
Dendrology	1.1
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" , pine	4.4112
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" , forestry	0.3
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" , tree	3.3, 4.693
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Drought	1.515
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Dry kilns	4.246
Dune fixation	8.27
Ecology, forest	1.4
" , plant and animal	G3.24
" , range plants	10.14
Economic geography	G2.2
Economics, forest	7.
" , general	G2.3
" , Government	G2.8
" , range and livestock	10.4
" , " " " , land ownership and control	10.45
" , " " " , policy and programs	10.43
" , " " " , prices and markets	10.42
" , " " " , relation to timber growing	10.44
" , " " " , resources	10.41





	Class
Edaphic factors	1.51
Education, forest	0.8
" , general	G0.0
Electric power	9.83
Embryology	1.2
Employment and labor requirements	4.01
Encyclopedias, forestry	0.3, G0.1
Engineering	G5.1
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" , relationship of forest plants to	1.4
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" , damages and benefits	8.24
" , history	8.21
" , programs, policies, and problems	8.22
" , sedimentation	8.28
" , soil stabilization	8.26
" , survey reports	8.23
" , upstream water control	8.25
" , wind erosion	8.27
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Essential elements, physiology	1.34
Evaporation	8.313
Even-aged systems of cutting	2.111
Experiment Stations, forest	0.7
Exports, forest products	4.03
Extension forestry	0.84
Extracted products	4.4
Extractives	5.412
Farm forest, management of	2.02
" forestry, general	0.01
Fastenings	5.23
Feeds and feeding, livestock	10.323
Federal land forestry, general	0.03
Fences	9.6
" , in range management	10.242
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Fibers, wood	4.328
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" , general	G2.7, G2.8
Financial aspects of growing timber	2.0
" " " intermediate cuttings	2.12
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" , control	3.15
" , effects	3.13
" , hazard, causes, and behavior	3.11
" , organization and policy	3.16
" , prevention	3.14
" , statistics	3.12
" hazard; forest, effect of grazing on	10.52
" retardants	4.94
" , silvicultural use of	2.122





	Class
Firelines	9.2
Fish	11.24
Flood control	8.2
" " , damages and benefits	8.24
" " , history	8.21
" " , programs, policies, and problems	8.22
" " , sedimentation	8.28
" " , soil stabilization	8.26
" " , survey reports	8.23
" " , upstream water control	8.25
Flooding, as a forest site factor	1.515
Food storage	1.34
Forage resources, improvement of	10.241
" types, range	10.1
" values	10.12
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" botany.	1.
" damage and protection	3.
" description and distribution	1.41
" ecology	1.4
" education	0.8
" experiment station proceedings and reports	0.73
" " stations	0.7
" genetics	1.8
" grazing and range management	10.
" improvements	9.
" influences	8.
" management	2.
" " , administration and organization	2.21
" " , application and results of	2.0
" " , business aspects of	2.2
" " , finance and valuation	2.22
" measurements	6.
" mensuration tables and charts	6.3
" " techniques and methods	6.2
" plants, relationship of to wildlife	11.25
" policy	7.3
" " , Federal	7.32
" " , foreign	7.31
" " , private and industrial	7.34
" " , State	7.33
" products, harvesting, manufacturing,	
" developing, and preserving of	4.
" recreational resource	11.11
" research	0.7
" " programs	0.72
" resources and economics	7.
" " statistics	7.1
" schools	0.81
" site quality	1.6
" situation	7.0
" soils	1.
" " and litter	1.51
" survey techniques	6.29
" vegetation, other, taxonomy	1.12



	<u>Class</u>
Forestry, city	1.71
" , community land, general	0.04
" dictionaries	0.3
" extension	0.84
" , farm, general	0.01
" , Federal land, general	0.03
" , general	0.0
" , " classification of	0.
" handbooks	0.2
" , industrial, general	0.02
" legislation	7.2
" " , laws and bills	7.21
" " , public control of forestry, need for	7.22
" manuals	0.2
" , private, general	0.02
" profession	0.8, 0.85
" , State land, general	0.04
Freight rates, forest products	4.042
Fruit and seed, growth	1.364
Fuelwood	4.76
Fungi	3.3, 4.693
Furniture	4.81
Game refuges	11.21
Gazettes	G0.3
Genetics	G3.25
" , application of in silvicultural practice	1.85
" , forest	1.8
" , range plants	10.17
Geography, general	G3.6
" , plant	G3.24
Geology	G3.6
Germination	1.364
Girdling	2.123
Glossaries	G0.2
Glues and gluing	4.511, 4.514
Government economics and public finance and taxation	G2.8
Grades, lumber	4.27
" , pulp and paper	4.327
Grazing animals, damage by and protection from	3.21
" capacity	10.22
" , forest	10.
" influences	10.5, 10.51, 10.52
" , relation to timber growing	10.44
" , veterinary medicine, animal industry	G4.2
Ground water	8.311
Growth, fruit and seed	1.364
" , general forest plant	1.36
" , growth regulators	1.361
" , of trees and stands	6.36
" , roots	1.362
" , stems and leaves	1.363





	Class
Gum naval stores	4.6
" " " , botany of naval stores species	4.67
" " " , chemistry of	5.421
" " " , effect of turpentineing	4.68
" " " , gum yields	4.66
" " " , history and description of gum naval stores industry	4.61
" " " , markets and marketing	4.63
" " " , processing and manufacture of gum	4.64
" " " , production of gum	4.65
" " " " problems	4.69
" " " , " statistics	4.62
Handbooks, forestry	0.2
Handles	4.84
Harvest cuttings, systems of; techniques and results	2.11
Harvesting, forest products	4.
Heartwood	5.123
Herbaria	1.13, 10.11
Heredity, range plants	10.17
" , trees	1.08
Histology	1.2, G3.22
History, general	G1.
" of forestry	0.9
Humidity, as a site factor	1.534
Hydrogenation	4.44
Hydrology	8.3
Hydrolysis	4.42
Identification, forest plants	1.1
" , general	G3.2
" , wood species	5.11
Imports, forest products	4.03
Impreg	4.522
Impregnated woods	4.522
Improved woods	4.5
Improvement cutting	2.124
Improvements, forest	9.
Index numbers	G3.828
Industrial forestry, general	0.02
Industrial relations	7.6
Industry, general	G2.5
Infiltration	8.312
Influences, forest and range	8.
" , grazing	10.5, 10.51, 10.52
Inheritance of characteristics, forest plants	1.81
" " " , range plants	10.17
Insect control	4.93
Insects	3.4, 4.691
Insurance, forest	7.5
Intake of materials	1.31
Integrated utilization, management for	2.04
Interception	8.313
Intermediate cuttings and culture, financial aspects of	2.12
Investigative technique	0.71





	<u>Class</u>
Joints and fastenings	5.23
Journalism	G0.0
Journals, lumber trade and forestry	0.5
" , proceedings, and reports	G0.8
Keys, forest plants	1.1
" , general botanical	G3.21
" , range plants	10.11
Killing undesirable trees	2.121
Kiln drying	5.33
Kilns, dry	4.246
Knots, gluing	4.514
Labor requirements, forest industries (see also specific industries under 4.0)	4.01
Laminating and laminated products	4.512
Land clearing, forest	9.1
" use, classification and zoning	7.41
" " , forest	7.4
" " , general	G2.3
" " , ownership	7.42
Lath	4.25
Laws and bills, forest	7.21
Legislation, forestry	7.2
" " , laws and bills	7.21
" " , public control of forestry, need for	7.22
Library indexes	G0.7
Light, as a site factor	1.531
Lignin and lignin derivatives	4.422
" , chemistry of	5.411
Litter, forest	1.51
Livestock, distribution and control of	10.23
" , range, management of	10.32
Log grades	4.15
" rules	6.31
" " , construction of	6.25
" storage	4.241
Logging	4.1
" , logging waste	4.14
" , log making	4.12
" , skidding and transportation	4.13
" , statistics (prices, costs, and labor requirements)	4.16
" , studies, general logging	4.11
" and milling studies	4.247
" , selective	2.01
" slash, disposal of	2.151
Lookout towers	9.9
Lumber	4.2
" , grades	4.27
" , history and description of lumber industry	4.21
" , lath, tent stakes, and similar byproducts	4.25
" , manufacturing	4.24
" , markets and marketing (prices, requirements, and consumption)	4.23
" , mill waste	4.26



	<u>Class</u>
Lumber, production statistics	4.22
" grades	4.27
Management, forest	2.
" for integrated utilization	2.04
" " special products	2.03
" of farm forests and woodlands	2.02
" plans	2.232
" , range	10.
" , " livestock	10.32
" , watershed	8.1
Manuals, general	G0.5
" of forestry	0.2
Manufacturing costs, lumber	4.247
" , forest products	4.
Maps, general forestry	0.3
Mapping	6.1
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" borer	3.4, 4.691
Markets and marketing, forest products (see specific industries under 4.)	4.05
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Mathematics and statistical methods	G3.8
Mensuration, forest	6.2
Meteorology, climatology, and weather	G3.91
Microchemistry, plant	G3.23
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" , species	0.21
" , type	0.22
Morphology, forest plants	1.2
" , general plant	G5.22
" , range plants	10.15
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" reproduction, requirements for	2.15
" resources	G2.2
" revegetation, range	10.241
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" " , " , chemistry of	5.421
" " , management for	2.031
" " , wood	4.411
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Nursery practice	2.172
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Nuts	4.08





	<u>Class</u>
Oleoresin	5.421
Outgo of materials	1.33
Ownership and control, range land	10.45
" " economics	G2.3
" , forest land	7.420
Oxalic acid	4.43
Packaging	5.26
Paints, use in wood preservation	4.96
Paleontology	G3.6
Paper	4.3
Paperboard, products and properties of	4.325
Parasites, livestock	10.324
Pathology, plant	G3.26
" , range plant diseases	10.16
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" , forestry	0.4
Pests, plant	3.7
Phenology	1.45
Philosophy	G0.0
Photogrammetry	6.13
Photography, aerial	6.13
" , general	G5.2
Photosynthesis	1.34
Phylogeny	1.2
Physical-chemical properties	5.43
Physics, astronomy	G3.9
Physiography, as a site factor	1.52
" , general	G3.6
Physiology	1.3
" , plant	G3.23
" , range plants	10.15
Piles	4.72
Pine needles	4.08
Plane surveying	6.11
Planing mills and planing products	4.243
Plant ecology	G3.24
" geography	G3.24
" industry	G4.3
" microchemistry	G3.23
" pathology	G3.26
" pests	3.7
" physiology	G3.23
Plantations, care of	2.12
Planting	2.17
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Plasterboard-sawdust	4.851
Plastics, wood	4.423
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	<u>Class</u>
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Poisons, silvicultural use of	2.122
" , use of on range	10.243
Poles	4.72
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" , erosion and flood control	8.22
Policy, Federal	7.32
" , foreign	7.31
" , forest	7.3
" , private and industrial	7.34
" , State	7.33
Posts	4.74
Precipitation, as a forest site factor	1.533
" , in relation to water cycle	8.32
Predators, livestock	10.324
" , on forest seed and trees	3.2
Preservation, wood	4.9
Prices and markets, livestock	10.42
" " " , gum naval stores	4.631
" , log	4.161
" , lumber	4.231
" , pulpwood (for other products, see specific industry under 4.)	4.314
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